

PATENT COOPERATION TREATY
PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference U 014764-0	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2004/037980	International filing date (<i>day/month/year</i>) 12 November 2004 (12.11.2004)	Priority date (<i>day/month/year</i>) 12 November 2003 (12.11.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant MORALI, Anthony			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report 15 May 2006 (15.05.2006)	
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Authorized officer	
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Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 07 APR 2005

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	05 APR 2005
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FOR FURTHER ACTION

See paragraph 2 below

Applicant's or agent's file reference

U 014764-0

International application No.

PCT/US04/37980

International filing date (day/month/year)

12 November 2004 (12.11.2004)

Priority date (day/month/year)

12 November 2003 (12.11.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): H01L 31/042, 31/048, 31/05 and US Cl.: 136/251, 244, 291; 52/173.3

Applicant

MORALI, ANTHONY

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

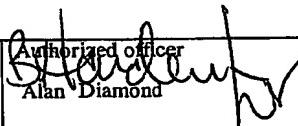
If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US04/37980

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- a sequence listing
 table(s) related to the sequence listing

b. format of material

- in written format
 in computer readable form

c. time of filing/furnishing

- contained in international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.

3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US04/37980

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-8</u>	YES
	Claims <u>NONE</u>	NO

Inventive step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-8</u>	NO

Industrial applicability (IA)	Claims <u>1-8</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-8 lack an inventive step under PCT Article 33(3) as being obvious over Hirai (JP 11-13130 A) in view of Dran et al (U.S. Patent 4,321,418). Hirai teaches a handrail structure for a building comprising solar power generation modules (15); a bottom crosspiece (13) which corresponds to the instant bottom rail and which supports the solar power generation module (15) from a portion of the building; and a top rail comprising top crosspiece (12) and coping (14) which together form an outlet conduit that houses interconnection cable (45) for outputting the power of the connected solar cells in said module (15) (see Figures 1, 2, and 4; and paragraphs 0001, 0006, 0021, 0031, and 0034). Figure 1 shows two panels (15), and the top crosspieces (12) and the bottom crosspieces (13) for each panel (15) are connected to each other at support (11), as per instant claim 2. Hirai's structure is a handrail structure, and thus, said top crosspiece (12) and coping (14) clearly form a handrail, as per instant claims 3 and 4. With respect to claims 5-8, the connection of said interconnection cable (45) to the building would have been within the skill of an artisan so that the electricity generated by said solar power generation modules (15) could be used by the building. Hirai teaches the limitations of the instant claims other than the difference which is discussed below.

Hirai does not specifically teach that each of its solar power generation modules (15) comprises the instant glass panels, connected solar cells, and sandwiching transparent or, at least, translucent film between the glass panels. Dran et al teaches a solar panel comprising glass panels (6,7); spaced and connected solar cells (2); and the instant sandwiching film (5) (see Figures 1-4; col. 2, line 65 through col. 3, line 68). Hirai's panel provides the advantage of being free of bubbles and other undesirable heterogeneities (see col. 3, lines 3-4). It would have been obvious to one of ordinary skill in the art to have used Dran et al's solar panel for Hirai's solar power generation module (15) because Dran et al's solar panel provides the advantage of being free of bubbles and other undesirable heterogeneities.

Claims 1-8 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US04/37980

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The description is objected to as containing the following defect(s) under PCT Rule 66.2(a)(iii) in the form or contents thereof: On page 4, at line 11, the term "at180" should be changed to "at 180".